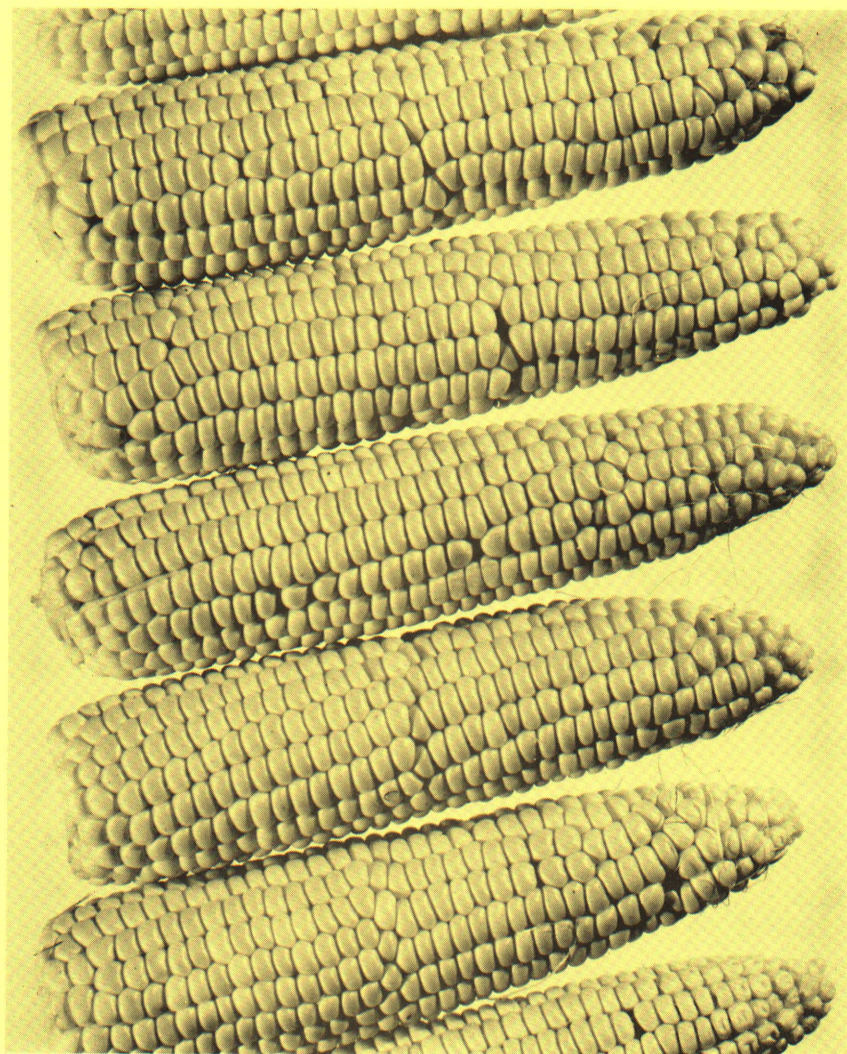


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**1974 SWEET CORN CULTIVAR TRIALS
GREEN SPRINGS CROPS RESEARCH UNIT**



DEPARTMENT OF HORTICULTURE

OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER
Wooster, Ohio

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SWEET CORN VARIETY TRIALS, 1974

Green Springs

A. R. Mosley and W. M. Brooks

Twenty-eight varieties were evaluated in replicated plots on sandy loam at the Green Springs Crops Research Unit in 1974. An additional 43 entries, including both experimental lines and named cultivars, were observed in single plots.

Prior to planting, 425 lbs. per acre of 6-24-24 was broadcast and incorporated along with 3 lbs. per acre each of Lasso and Diazinon. Seed were planted 3 to 4 kernels per hill on May 16. Hills were spaced 18-inches apart in single-row plots 3 feet wide and 32 feet long; the 28 major varieties were replicated 4 times. Plants were thinned to 2 per hill on June 6 for a stand of approximately 20,000 plants/acre. The planting was side dressed with 225 lb. per acre of ammonium nitrate on June 17. Insects were controlled satisfactorily by applying Sevin and Thiodan as needed; Dithane M-45, Bravo, and Copper were used for disease control.

The crop was not irrigated and suffered slightly from drought in late July and early August. Ears were harvested every 3 to 4 days as needed beginning on July 22 for early-maturing varieties and continuing until August 22 for the late-maturing Silver Queen. Varieties were harvested twice--the majority of the ears at average peak maturity and the remainder 3 to 4 days later. At harvest, ears were counted, weighed, and examined for tip cover; ten typical ears were then husked, measured for length and diameter, and examined for uniformity of appearance and insect and disease damage.

Seed Sources

Seed was obtained from the following firms:

- A-1 Agway, Inc., Buffalo, N.Y. 14240
- A-2 Asgrow Seed Co., Orange, Conn. 06477
- F-1 E. A. Wolf, Florida A.E.E.C., Belle Glade, Fla. 33430

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F-2 Ferry-Morse Seed Co., Mountain View, Ca. 94042
H-1 Joseph Harris Co., Rochester, N.Y. 14624
N-1 Northrup-King & Co., Minneapolis, Minn. 55413
N-2 Niagara, FMC Corp., Modesto, Ca. 95618
O-1 The Ohio Seed Co., West Jefferson, Ohio 43162
R-1 Robson Quality Seeds, (Seedway, Inc.) Inc., Hall, N.Y. 14463
S-2 Schlessman Seed Co., Milan, Ohio 44846
T-1 Otis S. Twilley Seed Co., Salisbury, Md. 21801

RESULTS

None of the entries showed any appreciable amount of damage by either insects or disease. Therefore, these data are not included.

Replicated varieties are ranked by days to first harvest and marketable yield in tons per acre in Table 1. Early entries were generally lacking in quality and appearance compared to later-maturing types. Among the 60-day varieties, Spring White produced fairly attractive white ears--some were bicolored--and high yields averaging 1678 dozen marketable ears per acre which weighed 5.21 tons. Despite some poor ear fill, 96 percent of the Spring White ears were classed as marketable. Sprite and Sundance also produced satisfactory early yields of 4.38 and 4.29 tons, respectively. The bicolored ears of Sprite frequently produced double tips. Royal Crest was the lowest-yielding 60-70 day variety with only 1.59 tons of small, poorly filled ears.

Harmony yielded 6.33 tons of marketable ears to lead in yield among the 70-75 day entries. Ears of Harmony were bicolored, covered with thick husks, and snapped easily from the stalks. Golden Earlipak was damaged extensively by rodents and may have produced higher yields than the indicated 3.32 tons had this factor been eliminated.

Varieties maturing between 75 to 80 days were generally not promising in these trials with the exception of Silver Sensation which yielded 7.14 tons. Although FM Cross Rapid Pak yielded 4.50 tons per acre, most of the ears were

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tinged with pink which detracted somewhat from the overall appearance.

Apache outyielded all other entries in the 80 to 85 day class with 6.54 tons of bright yellow, attractive ears. Ears of Preview were non-uniform with wide gaps between rows of kernels in many cases.

Sweet Sue and Moonglow produced high yields of extremely large ears averaging almost 1 lb. each with husks on. Most of the late varieties were acceptable from a quality standpoint. Silver Queen continues to be an excellent late white corn.

Observational Selections.-- Several of the observational entries produced high yields of good quality corn (Table 2). However, these figures are based on single plots and may be misleading. Varieties and experimental selections showing exceptional promise will be tested further.

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TABLE 1.--Average Yield, Ear Size and General Characteristics of Replicated Sweet Corn Varieties, Green Springs Sweet Corn Trials, 1974.

Variety (1)	Source	Days To	Harvest	Mkt. Yield/A			Avg. Ear Size (Husked)					Ear Uni- formity	Comments
		First Harvest	Duration Days	Tons	Doz.	%	Tip(2) Cover	Wt. lbs.	Lgth. in.	Dia. in.	Lgth/ Dia.		
Spring White	H-1	67	2	5.21	1678	96.3	3.0	.46	5.9	1.5	3.93	1.4	Small, white. Poor ear fill.
Sprite	H-1	67	4	4.38	1317	94.0	3.0	.55	6.5	1.6	4.06	2.8	Bicolored. Some double tips.
Sundance	H-1	67	4	4.29	1336	92.1	3.0	.54	7.1	1.5	4.73	2.2	Uneven mat. Yellow.
Royal Crest	H-1	67	10	1.59	605	78.0	3.0	.46	5.9	1.5	3.93	1.4	Small, yellow. Poor ear fill.
Spring Gold	H-1	70	4	3.52	1219	90.2	3.0	.48	6.2	1.6	3.88	2.6	Att. light yellow.
Seneca Star	R-1	71	7	4.55	1249	91.5	3.0	.61	7.5	1.7	4.41	2.7	Yellow.
Golden Earlipak	O-1	71	3	3.32	927	91.4	2.7	.60	8.1	1.6	5.06	1.3	Rodents. Poor fill, gaps between rows.
Harmony	H-1	74	3	6.33	1531	93.0	3.0	.69	7.0	1.7	4.12	2.8	Snaps easily, thick husk, bicolored.
Golden Sensation	S-2	74	8	3.64	946	91.4	2.8	.64	7.8	1.8	4.33	2.5	Lge. flat kernels. Att. Good fill.
FM Cross Rapid Pak	F-2	77	8	4.50	1132	94.8	2.8	.66	8.0	1.7	4.71	1.9	Pinkish yellow ears. Not esp. promising.
Yukon	N-1	77	4	3.80	1034	93.4	3.0	.61	8.4	1.6	5.25	1.9	Light yellow. Long thin. Att.
Butter & Sugar	T-1	77	4	1.96	663	90.9	3.0	.49	6.8	1.6	4.25	1.6	Small, bicolored.
Silver Sensation	S-2	80	5	7.14	1766	78.2	3.0	.67	7.7	1.8	4.28	1.7	White pointed ears, yields.
Gold Cup	H-1	81	4	6.40	1756	91.2	3.0	.61	7.0	1.6	4.38	2.6	Dark silks. Att. yellow. Yields.
Bellringer	H-1	81	4	6.02	1453	97.8	3.0	.69	7.3	1.7	4.29	3.0	Att. Med. lge. Yellow
Preview	F-2	81	4	4.98	1102	90.4	3.0	.75	7.3	1.9	3.84	1.3	Poor uniformity. Irreg. rows.
Apache	A-2	84	5	6.54	1639	92.2	3.0	.67	7.2	1.7	4.24	2.7	Att. Bright Yellow.
Tri Gold	N-1	84	5	5.84	1346	81.9	3.0	.72	7.1	2.0	3.55	2.4	Short, thick, heavy husk.
Triumphant	N-2	84	4	5.65	1366	93.3	2.8	.69	7.8	1.8	4.33	2.8	-----
Tendersweet	A-2	84	3	4.83	1327	89.9	3.0	.61	8.2	1.5	5.47	2.8	Long, slender. Some missing kernels.
Grand Master	H-1	84	4	4.65	1141	88.0	3.0	.68	7.6	1.7	4.47	2.9	Bright yellow, white cob. Attractive.
Sweet Sue	H-1	89	7	7.52	1385	95.0	3.0	.91	7.7	1.9	4.05	2.8	Bicolored. Dark green husk. Att.
Silver 'n Gold													
Sensation	S-2	89	6	4.92	1434	77.0	3.0	.57	8.0	1.7	4.71	1.0	Bicolored.
Moonglow	H-1	91	5	7.62	1414	87.2	3.0	.90	8.5	1.8	4.72	2.9	White, large flat kernels.
Capitan	A-2	91	5	6.97	1551	91.6	2.8	.75	8.1	1.8	4.44	2.9	Att. Yellow ears.
Comander	A-2	91	5	6.94	1453	87.3	3.0	.80	8.7	2.0	4.35	2.4	Large ears, kernels yellow.
Glacier	H-1	91	5	5.47	1239	80.0	3.0	.74	7.7	1.8	4.28	2/7	White. Some bicolor.
Silver Queen	H-1	97	6	8.87	1346	79.8	3.0	.85	7.6	1.9	4.00	3.0	Excellent white.
LSD 0.5%				1.40	296								

(1) Cultivars ranked by days to first harvest and yield/acre in tons.

(2) A rating of 1 indicates exposed tips, 3 indicates at least 1-inch cover.

(3) General appearance of ears: 1 = poor, 3 = excellent.

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TABLE 2.--Yield, Ear Size, and General Characteristics of Unreplicated
Observational Entries, Green Springs Sweet Corn Trials, 1974.

Variety	Source	Days to Harvest	Mkt.Yield/A		Avg.Size, in.		Ear Uni- formity	Comments
			Tons	Doz.	Lgth.	Dia.		
Early Fortune	A-1	67	3.71	1407	6.9	1.57	3.0	Attractive Yellow.
Earliking	N-1	67	3.19	1133	6.6	1.65	1.5	Uneven Maturity.
Earliking	H-1	67	4.85	1602	6.4	1.65	1.0	-----
Seneca XP-193	R-1	67	4.34	1251	7.6	1.58	1.0	Uneven fill. Gaps.
Seneca XP-192	R-1	67	3.45	1251	6.4	1.55	3.0	Uneven Maturity. Yellow
Golden Sensation 65	S-2	74	1.45	625	6.8	1.40	2.9	Yellow
XP 1343	A-2	74	4.95	1446	7.3	1.60	2.8	-----
Buttercorn	A-1	77	2.98	1016	6.5	1.60	2.5	Bicolor. Small Ears,lge. Kernels.
Stylepak	F-1	77	9.08	2267	8.2	1.51	1.5	Too thin, light color.
Seneca Chief	R-1	77	4.06	1329	6.8	1.60	1.4	Poor fill.
68-1974	R-2	77	6.03	1641	7.9	1.68	2.5	Light. Attractive. Thin.
Fanfare	R-2	77	4.36	1133	7.8	1.73	1.5	Uneven fill. Mat. Att.
NCX -2010	N-2	78	4.55	1485	7.4	1.64	2.5	Attractive
72-1707	R-2	78	3.38	1016	7.3	1.75	2.7	Poor tip fill.
EXP 2583	N-1	78	6.14	1407	7.8	1.80	3.0	Promising!
Butter & Sugar	T-1	81	2.63	860	6.9	1.70	2.8	Bicolor
Eastern Belle	A-1	81	5.51	1524	7.8	1.62	1.7	Poor tip crown. Yellow.
Northern Belle L.	H-1	81	4.50	1172	6.7	1.70	1.9	Poor fill. Irreg. kernels.
NCX-242	N-2	81	5.18	1368	8.4	1.75	2.8	-----
NK-51036	N-1	81	5.67	1368	7.6	1.75	1.9	Yellow
Seneca XP-208	R-1	81	5.82	1329	8.5	1.80	2.9	Attractive Yellow.
Jubilee	R-2	85	1.36	430	7.6	1.50	1.9	Poor
70-2021	R-2	85	7.43	1524	8.2	1.95	2.7	No Sugar!
XP 362	A-2	86	6.12	782	7.5	1.70	2.8	Yellow
E 4208	F-1	86	5.77	1251	8.3	1.75	2.7	Promising. Yellow.
NK-199	N-1	86	3.05	821	6.3	1.75	2.6	Yellow. Poor fill.
Gold Crown	H-1	86	8.18	1876	7.8	1.87	2.8	Bright Yellow.
44-82	H-1	88	4.90	1485	7.7	1.60	2.8	Poor fill.
XP-185A	H-1	88	7.22	1641	8.3	1.67	2.8	Poor fill.
EES-SH-499C	F-1	88	4.36	1055	7.9	1.70	3.0	Pale. Pointed.
Seneca XP-199	R-1	88	7.04	2149	8.0	1.55	2.7	Long slender. Yellow.
JL-40	H-1	88	5.35	1368	8.3	1.70	2.8	Promising!
NCX-241	N-2	88	5.96	1251	8.4	1.87	3.0	Attractive
NCS-2004	N-2	88	6.36	1368	8.3	1.85	3.0	Promising!
Seneca Scout	H-1	89	3.92	1055	7.6	1.73	2.7	Attractive.
67-57	H-1	91	8.96	2032	8.6	1.85	2.7	Poor tip cover.
Golden Sensation 85	S-2	91	3.59	899	7.5	1.75	2.2	----
Midway	A-2	91	5.04	1172	8.5	1.67	2.9	Attractive.
Flordia Sweet CABD	F-1	91	2.06	469	8.4	1.75	1.8	Uneven fill.
NCX-200	N-2	91	3.85	899	8.4	1.85	2.0	----
Bicolor	H-1	96	9.57	1641	8.5	1.90	1.8	Long, slender.
Florida Sweet CA	F-1	96	2.44	547	8.3	1.80	1.3	----
Bicolor Silver Queen	L-2	97	4.53	1133	7.0	1.70	1.5	----

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